

AMENDMENT UNDER 37 C.F.R. § 1.111
Application No.: 10/667,368

Attorney Docket No.: Q75436

AMENDMENTS TO THE DRAWINGS

Applicant hereby submits replacement FIGS. 1 and 9.

Attachment: Replacement Sheets

REMARKS

Status of the Application

Claims 1-8 and 10-22 are all the claims pending in the application. Claims 1-8 and 10-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobori (U.S. 6,327,554) in view of Oda (U.S. Pat. App. Pub. No. 2002/0180348). Claims 15, 17 and 18 are objected to for various informalities.

By this Amendment, Applicant hereby amends claims 1, 10, 15, 17, and 18, and add new claim 23.

Drawing Objection

The drawings are objected to under 37 C.F.R. § 1.83(a).

The Examiner alleges that the drawings fail to show “wherein said diffraction grating structure has a pitch of a fine convex-concave structure being in a range of from 1 μm to 4 μm , and a depth of said fine convex-concave structure being in a range of from 0.4 μm to 4 μm ” as recited in claim 1.

Applicant hereby submits replacement FIGS. 1 and 9 to correct the noted deficiency. Withdrawal of the objection is respectfully requested.

Claim Objections

Claims 15, 17 and 18 are objected to because of informalities.

Applicant hereby corrects the noted deficiency. Withdrawal of the objections is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 1-8 and 10-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobori (U.S. Patent No. 6,327,554) in view of Oda et al. (U.S. Publication No. 2002/0180348).

Claim 1 recites, in part, “wherein a minimum light-emission value is equal to or less than 50% of a maximum light-emission value when white light is emitted from said light-emitting portion.” The Examiner alleges that Kobori teaches all of the aspects of claim 1, but concedes that Kobori fails to teach or suggest the diffraction grating structure claimed in claim 1. However, the Examiner alleges that Oda cures the deficiencies noted with respect to Kobori. Specifically, the Examiner alleges that FIG. 2 and the abstract teach or suggest the diffraction grating recited in claim 1. Further, the Examiner alleges that it would have been obvious to one of ordinary skill in the art to modify the teachings of Kobori with a diffraction grating element of Oda to improve the light extraction efficiency of the device and its viewing angles. Additionally, the Examiner alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize: 1) the workable range of the diffusion grating to improve the light extraction efficiency of the device, and 2) the grating structure to have less internal reflection by adjusting the index of refraction in order to prevent light emitted from the organic EL being reflected at the grating structure and traveling backward. The Examiner cites *In re Aller*, 105 USPQ 233, for stating that discovering an optimum or workable range involves only routine skill in the art.

The Examiner continues to assert that Kobori discloses “wherein a minimum light-emission value is equal to or less than 50% of a maximum light emission value when white light is emitted from said light-emitting portion. However, the Examiner has not responded to the argument presented in the Amendment dated August 28, 2006, that Kobori fails to teach or

suggest this aspect of the instant invention. The Examiner cites to col. 8, lines 20-35 as teaching the recited minimum light-emission value. However, Kobori only discloses an electron injecting electrode having a reflectance of at least 50% in a wavelength region of 300 to 700 nm. Without an express correlation to the contrary, Applicant submits that the reflectance of the electron injecting electrode is irrelevant to minimum light-emission value of the light-emitting portion claimed in claim 1. Kobori effectively relates to a modeling of the emissions of a light structure including multiple layers, including two reflective layers disposed on each side of a reflective layer. Col. 12, lines 31-35. The localized emissions are merely part of the overall emissions. Col. 12, lines 31-41. The reflective properties cited by the Examiner at col. 8, for example, are merely partial representations of the overall emissions, and thus the light emissions need not correspond to the structure as claimed. The Examiner has not stated how the reflectance of the electron injecting electrode would correlate to a light-emission value relative to white light in order to teach or suggest the minimum light-emission value claimed in claim 1. Kobori effectively shows light emissions in the wavelength range of 500-550 nm, which would indicate a strong color emission relative to white light. Thus, Applicant submits that Kobori fails to disclose this aspect of claim 1. Because Oda fails to cure this deficiency in Kobori, the proposed combination of Kobori and Oda fails to disclose all of the elements of claim 1, as required by MPEP §2142. Thus, claim 1 is patentable over the applied art.

Moreover, the model relies on the assumption of a constant dimension for the light emission structure. See FIG. 1 and col. 12, lines 31-35. This would tend to teach away from Kobori's combination with any structure having concave-convex structures. Thus Kobori's model teaches away from its combination with Oda.

Claims 2-8 and 10-22 are patentable at least by virtue of their dependency from claim 1.

Claims 2 and 3 are patentable for reasons independent of their dependency. Claims 2 and 3 are directed toward a color-separation filter having a minimum transmittance of 50% of a maximum transmittance. Kobori fails to disclose a color separation filter having any of the recited limitations. Thus, claims 2 and 3 are patentable over the applied art.

New Claims

Applicant hereby adds claim 23. Claim 23 is dependent from claim 1, and is patentable at least by virtue of its dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

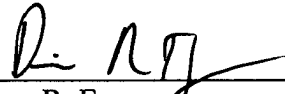
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